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EVOLUTION AND REVELATION

By Prof.
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EVOLUTION AND REVELATION

By Professor J. A. Fleming, M.A., D.Sc., F.R.S.

IT can hardly be denied that in the last half-century, or even less, a very great change has taken place in the attitude of the public mind towards scientific speculations on the great problems of the beginnings of the material Universe, and the origin of the human race. At the earlier point of that period popular thought and opinions on these matters were very widely based on time-honoured interpretations of statements in the earlier chapters of the book of Genesis, and any attempt to modify them was esteemed impious and dangerous.

At the present time the pendulum has swung to a large extent in the opposite direction. The immense practical achievements of scientific research and invention have given an authority and weight to scientific hypotheses and theories which is sometimes in excess of that justified by ascertained facts. Popular expositions have familiarized most persons with the ideas covered by the term Evolution, but have not always been careful to point out where actual knowledge ends and speculation or hypothesis begin. At the same time, another influence has come into operation which has tended to weaken the authority of that ancient and revered literature we call the Bible, and that is the gradual diffusion of ideas regarding it which have resulted from a purely literary treatment commonly called the higher criticism. It is difficult to justify the term "higher," and some of it might perhaps more aptly be termed destructive criticism.

It is unquestionable that the collection of Hebrew and Jewish writings collectively termed *the* Bible, and deeply felt by untold multitudes to be not solely the product of human intelligence, has exercised an inexpressibly great influence upon our race. There must be something very peculiar and unique about a collection of writings emanating from one small family of mankind, which has made it possible and urgent to translate it into every language spoken on this earth, to circulate it by millions, and publish vast libraries of other books expounding it and enforcing its teaching. It is a literature which has caused the sacrifice of countless lives of the best of the human race in defence of the

right to possess it, read and distribute it, and which excites in its readers either the greatest reverence and attachment, or else indifference or aversion.

This collection of books is in itself a phenomenon, and one that is a continual challenge to mankind to explain. There are in fact three closely connected problems which perpetually present themselves to the human intelligence and pressingly invite to a serious study of them. The first of these is the origin of, and source of, the order in the material Universe ; the second is the true origin, nature and destiny of the human race, predominant now over all other races of living beings on the earth ; and the third great problem is the origin and source of power of this unique literature, the Bible.

The welfare of the human race is essentially bound up with a study of, and obedience to, the resistless uniformities and invariable processes we call the laws of Nature, and, speaking generally, this study is embraced in the term Science. At the same time, innumerable facts proclaim that human beings are something more than mere masses of organic matter controlled by chemical or physical laws, or even intelligent animals, and that the well-being and progress of the human race is inseparably connected with the development and nourishment of certain ethical and spiritual faculties which especially distinguish the human from the animal races. Where that is neglected or prevented moral decay invariably sets in, and a disintegration which affects the very foundations of the structure of human society.

It is, however, an unquestionable thing that the unaided intellect of man—who has been able by his astronomy to plumb the vast abysses of stellar space, and by his microscopes and physics to explore the infinitely small things of nature, even to the structure of atoms—finds a far more difficult problem in the mystery of his own nature and origin, and the origin and mode of production of that physical Universe he is able to examine. So far as he has been able to find answers to these questions, the explanations to which he has been led by the light of his own unassisted reason seem to be at variance with the answers given to them in the books we collectively call the Bible, which in other respects makes such a powerful and authoritative appeal to the deep-seated convictions of human nature. As the conclusions arrived at on these problems of origin have important consequences in reference to religious beliefs, ethical standards,

and objects of human pursuit, little excuse is required for making a brief re-examination of their relative validity.

The majority of persons take their opinions on difficult subjects ready-made from those they deem special authorities, and hence, when once a certain view of a subject has been broadcast and widely accepted as the right or fashionable one, it is very difficult to secure an unbiassed reconsideration of it.

At the present time one very generally accepted opinion as to the origin of the physical Universe and of the human race is that it has been brought about by an Agency called Evolution. The term Evolution is generally used to imply a gradual development from the simple to the complex, or from the general to the specialized, form as contrasted with sudden creation. But it seems also to be employed by some writers as a term to denote an active operative cause, in such phrases as Evolution does so and so, Evolution has produced an eye, or an ear, or a brain. If the word Evolution is taken to be a name for a Process, it is one which is convenient and unobjectionable; if, however, it is used to connote a producing Agency, impersonal, self-acting and sufficient by itself as an explanation of the countless complexities of Nature, then it is wrongly employed. To say that Evolution alone has produced a highly specialized organ such as an eye or ear, with obvious design, adaptation, and purpose, is as much nonsense as to say that the spontaneous action of pieces of wood or metal has produced a photographic camera or an electric telephone.

It is perfectly admissible to contend that Evolution in the first sense of the term, viz., a gradual development, is the method of creation, but the thesis we shall attempt to uphold in this short paper is that even then it does not dispense with the necessity for a perpetually active Directive Intelligence, but, on the contrary, all Growth requires Guidance, and the ultimate sources of both Growth and Evolution are the thought and will of an ever-acting Supreme Divine Intelligence, and not impersonal, un-self-conscious energies or forces. In short, this physical Universe is a Thought rather than a Thing, and Thought implies and necessitates a Thinker.

Let us then consider some of the matters on which modern views are supposed to contradict older opinions in the light of ascertained scientific knowledge. The book of Genesis opens with the statement, "In the beginning God created the heaven and the earth." That assertion implies that if we could go far

enough back in time we should arrive at events which were not the mere physical or natural consequences of a previously existing state, but that there was a discontinuity due to operations by a self-conscious Power quite independent of the Universe of things. In opposition to this view, the opinion has not uncommonly been held that the physical Universe never had a beginning, or, at any rate, that we cannot ascertain its origin beyond attributing it, in Herbert Spencer's phrase, to some Unknowable First Cause, or that, in any case, it is, philosophically speaking, not more difficult to admit an uncreated infinite past duration for the Universe of things than to admit it for a Creator. The question really is: Are we to look for the Final Cause of all things to a Thought in a Mind not our own, or to a self-ordering quality in that external Universe which is the cause of thought in our minds? There are, however, some arguments which can be presented in support of the opinion that there must have been a beginning, or even many beginnings, to the physical Universe, in the sense that events then took place which were not the result of physical or biological agencies now in operation but to some Cause entirely different.

Our examination of this physical Universe has led us to see that there are apparently four actualities corresponding to four fundamental concepts in our own minds, which a more searching analysis has reduced perhaps to two. These four are Matter, Energy, Space, Time. Without attempting to give definitions which shall satisfy a critical philosophy, we can for present purposes define Matter as the permanent source of our sensations, or perceptions; we can feel it, see it, smell it, etc. All changes in Matter involve something called Energy. Thus, if a mass of matter is set in motion, whether as a whole or by vibration of its atoms, we have to bestow energy to it. All phenomena in Nature involve changes in the form of energy, and all transformations of energy take place by exact numerical equivalents. We have learnt by experience that we can neither create nor destroy Energy or Matter. Hence they are said to be conserved, and the conservation of Energy and of Matter are the fundamental laws of physics and chemistry. Nevertheless, all energy is not in a form in which it is available for further transformations. At each transformation some energy passes into the form of diffused low-temperature heat, and is then non-available. This principle was called by Lord Kelvin the Dissipation of Energy.

If, then, the laws of Conservation and Dissipation of Energy hold good for the whole physical Universe, we can at once conclude that it is not infinite in past-duration, but had a beginning, since if there can be no spontaneous production of energy, and if all changes involve dissipation of Energy, then, if it had been infinite in past-duration, all the energy would long ago have passed into the form of universally diffused low-temperature heat. But it has not done so. Hence these laws imply not only that the physical Universe had a beginning, but that it had a Source from which this Energy was originally derived—in other words, it had a Creator. This argument will hold good even if Matter can be converted into Energy.

Another argument might perhaps be derived from the rotational Energy in the Universe. All the masses of matter on a large scale in stellar space are, as far as we can find, in rotation. Our earth revolves on its axis, and revolves round the sun. The satellites all revolve round the planets. The sun revolves on its axis. Binary stars revolve round each other. Now it is a fundamental principle of dynamics that a body cannot change its own angular momentum, or moment of momentum, by actions inside itself; it can only be done by some external torque or twisting force acting on it. All the stars we have been able to measure are found to be in motion, and the inference is that the stellar Universe as a whole may have a resultant angular momentum, or rotational energy. But it cannot have imparted this to itself. There must have been some event in the far past of the nature of a beginning at which this rotational energy was imparted to it from an external source.

When we pass from the consideration of purely physical to biological processes, we find in the same way scientific arguments for a beginning. All living things, animals and plants, are built up of small units called cells, and the cell in its simplest form is a small mass of material called protoplasm. This substance has four properties or powers, (i) spontaneous motion, (ii) absorption of suitable nutriment from some surrounding medium, (iii) growth or increase of some kind and (iv) sub-division or multiplication constituting reproduction. In other words, Motion, Nourishment, Growth, and Reproduction, or Generation, are the characteristic properties of living substance. In the majority of cases the cell has the power of surrounding itself with non-living material, and the interior usually comprises a very complicated structure called the nucleus.

If a cell of living protoplasm has an electric shock administered to it, or is exposed to too high a temperature, it becomes "dead," that is, loses its above-named specific qualities. No one at present knows exactly what change then takes place in it when it passes from the living to the dead state. Furthermore, the most elaborate researches have not shown us how we can produce living protoplasm from non-living or dead matter. The most assured result is that every living organism has been produced only by a previously living organism. All attempts to prove or produce spontaneous generation have failed.

Rigorous research epitomizes itself in the maxim *Omne vivum ex vivo*. Hence the production of living matter involved a "beginning" of some kind, in that it was not the result of mere physical and chemical actions. To say that if we went far enough back in time we might find the conditions under which organic but non-living matter passed into living matter, is pure speculation and hypothesis; the verdict of scientific research at present is that it is not possible for us to do it now, and that it does not happen spontaneously at present. Therefore, the Life in the Universe, like the Energy, involved a beginning and a Causative Agent.

But there is a third manifestation in the Universe which indicates strongly the action not merely of a Causative Agent but of a Supreme Intelligence, and that is the Order presented in it. The free interaction of merely physical forces produces only the greatest possible disorder. In a volume of gas such as our atmosphere, the free collisions of molecules cause the motions of all of them to be distributed in every possible direction and with every possible speed—some fast, some slow.

If at any time we could find gas atoms in an enclosed vessel moving all with equal speed in the same direction, we should consider it called for careful examination as to the reason of it. The pebbles on a beach rubbing together and dashed by the waves are of all possible shapes and sizes and arranged in the greatest possible disorder. If we were to find them arranged in regular heaps all of the same size and increasing by regular increments from heap to heap, nothing would persuade the most ignorant person that this orderly arrangement was the result of chance.

The trees in a forest or jungle present the greatest disorder in size, species and position. If we find some long avenue of trees of all the same kind arranged at regular intervals, the

deduction would be irresistible that this was not the result of mere physical agencies, but of an intelligent order-making mind.

The result of our examination of all parts of Nature is to reveal a marvellous order, and numerical relation or inter-connection. This is nowhere more apparent than in studies of atomic structure made of late years. All the different materials we know are built up of collections of some 88 different kinds of atoms, and these last of groupings of two kinds of particles of electricity called protons and electrons. The atoms are constructed on the pattern of the solar system—a nucleus or sun with revolving planets or electrons. The simplest atom is that of Hydrogen, which consists of 1 proton and 1 electron in revolution round each other. The next in order is the Helium atom, with a nucleus of 4 protons and 2 electrons tightly bound together, and 2 planetary electrons revolving round it. Thus we go up step by step until we reach the atom of Uranium, with a bulky nucleus built up of 238 protons and 146 electrons, and a family of 92 planetary electrons circulating round it.

When we find articles of human manufacture, such as screws, or wire, or other things, made only in definite and regularly progressive sizes, we are convinced that this can only be the result of intelligent design. Those objects in Nature which arise from the action of physical or biological impersonal agencies, such as the size of hailstones or leaves on a tree, exhibit no such accurate similarity or regular progression, though a general likeness may be apparent.

The atom has all the appearance of being a manufactured article, to use a phrase of Sir John Herschel, and a standardized manufactured article implies a manufacturer controlling manufacture. Hence the Order, no less than the Energy and the Life in the Universe, give us powerful proof that there has been for each a beginning which must be traced up as a final step to a Supreme Intelligence and Creative Power.

That observed Order cannot be regarded as simply the creation or projection of our own minds. We ourselves, as intelligent beings, possess the power of order-making in various departments of activity, and we can therefore recognize order and disorder in the work of others like ourselves. In the Universe, in parts of it beyond our control, we also recognize an Order, and as that is recognizable only by virtue of thought in us, it must be the product of Thought beyond and above us, due to an Intelligence not ourselves.

But it is clear that not only have there been "beginnings" to fundamental things, but there has been a gradual development in progressive stages. Nothing of all that we can see makes, or has made, its appearance fully formed at once and suddenly.

We have to distinguish, however, two different developments. There is first that of the individual, whether animal, vegetable, or inorganic body, which we call, properly, Growth. Then there is the production of definite varieties of complicated structures or individuals by gradual changes, and to this latter process, as far as it exists, the term Evolution is commonly applied.

It is unnecessary to give more than a few moments' attention to the familiar subject of Growth. As regards forms of animal life in the initial stages, there is such close resemblance that it is difficult for a skilled observer to predict the ultimate result. In every germ cell or vegetable seed there is, however, unquestionably some pattern-producing power latent. The plant draws supplies of material from the atmosphere and the soil which are built up into the most diverse forms and into organic compounds of great complexity, and yet constitutional difference, such as quinine, caffeine, india-rubber, indigo or sugar. That atoms of carbon, hydrogen, oxygen, sulphur and nitrogen should thus spontaneously marshal themselves into complex molecules is unthinkable. The animal ovum in the same manner, given its proper nutriment, has a fixed law of development within certain well-defined limits, and builds up forms of living being constant to type.

The objection has always been raised that to divert even an atom from the path in which it is being urged by physical forces due to attractions or repulsions of other atoms, requires an expenditure of energy, and, therefore, that any such directional or guiding action would involve a violation of the law of Conservation of Energy. But there are ways in which guidance can be exercised so as to create order without any violation of that Law.

Imagine a large funnel full of coloured beads, and let the funnel lead into a perfectly flexible, frictionless pipe. Suppose the funnel held up at a high level and the beads allowed to fall under gravity down the pipe, they would make a disorderly heap on the floor and at the same time convert the potential energy of the elevated beads into its equivalent in low-temperature heat when they strike the floor. Next, let an intelligent person take hold of the flexible tube and bend it so as to guide each

bead as it falls into a certain place on the floor depending on its colour. A bead pattern exhibiting an order might thus be formed on the floor in place of a disorderly heap, yet there would have been no violation of the law of Conservation of Energy.

It is therefore permissible to take the view that the power latent in every germinal cell or seed of development or growth, according to type, cannot be wholly due to impersonal agencies, but is a continual manifestation of Thought and Will which are attributes not of things but of Mind. This principle, that Growth requires Guidance, may be, and most probably is, operative in the inanimate things of Nature as well as in the animate.

Our astronomy has made us cognizant that stars, no less than vegetables and animals, have a growth and a life-history, a birth, maturity and decay. Our large telescopes show us in the nebulæ vast masses of incandescent gas being whirled in spirals and condensing round one or more centres into infant suns. It has been shown that as such an incandescent mass radiates light and heat, it first becomes hotter in itself and not cooler, then by degrees it contracts and cools, and finally ends by becoming a dark and invisible mass. A distinction is now made between so-called giant stars, which are enormous masses of incandescent gas of small density, and so-called dwarf stars which are dense and small. The giant stars are in the first vigour of gaseous youth and activity, the dwarfs are the ancient ones in a state approaching senile decay.

No one, however, who possesses the smallest powers of serious thought can have looked at the starry heavens in open country on a clear night, with even a small knowledge of astronomical science, without asking himself the questions: How comes it to pass that this Universe has developed along the lines on which we see it has? Is it by the merely fortuitous action of physical forces? Is it the only possible Universe, or can it be the product merely of a chance concourse of atoms? It is a mighty maze. Is it without a plan? It is perfectly certain that it has not always been as we see it now, and that the changes from simple to complex have been gradual, and therefore that Evolution, in the proper sense of the word, has been operative. To say, however, that Evolution alone has produced it or guided it to its present condition is equivalent to attributing to Matter a self-arranging power, to bestow upon it the qualities of Mind, and to make a creative deity out of that which is merely the name for an observed process or effect.

The Biblical idea is infinitely more satisfying and sufficient, in that it places the source of the thought-stimulating or thought-generating power which the external world has upon our intelligence in a Supreme and Independent Intelligence, which is not identical either with ours nor identical with the external world in a pantheistic sense.

The objection which scepticism has always raised to this view is, that we have no experience of mind or thought except in association with a complex material-organism called brain, and that when the human brain is injured or defective the thinking power or intelligence is to that degree also injured, and when the brain is destroyed the thinking power seems to disappear. Without attempting any discussion of this psychophysical parallel, as it is called, it may be sufficient to say that we are unable to find the foundations for a sound philosophy except by recognizing a distinction between Object and Subject, between a thing perceived and a perceiving personality. The brain is the instrument of thought, but it is not in itself the Thinker.

The distinction is closely analogous to that between the musician, his musical instrument and the music. The musician is limited in the music he can produce by the perfection or imperfection of his musical instrument. If this last is injured beyond a certain point he can produce no music, but if he is given another instrument he can make music, perhaps even better than before. The instrument, however perfect, can make no music by itself.

May we not then say that the whole material creation is the brain of the Supreme Thinker ? It is that by which He manifests His Thought to subordinate thinkers such as ourselves, but the creation is not to be identified or confused with the Creator. If then we see that changes in the Universe take place in general very slowly and not by sudden jumps, we may be entitled to say that Evolution is the method of creation, but we are not entitled to elevate Evolution into the position of a self-acting creative deity.

The battle concerning Evolution and Creation has always been most fiercely fought in connection with the subject of biology, and especially the production of animal and vegetable species. All forms of animal and vegetable life are grouped into subdivisions according to form and structure. The smallest group which propagates true to one form or type is called a species, and for the most part these species are very distinct from each other.

Nine times over in the first chapter of the book of Genesis it says of animals and plants they are to propagate "after his kind" or "after their kind," as indicating a production and preservation of distinct life-forms. It is, however, a familiar experience that the progeny of one pair or the successors of one plant differ slightly whilst otherwise generally similar. We can by cross-breeding or cross-fertilization create varieties sometimes very diverse, as in dahlias, roses, pigeons and dogs, etc., but there is a limit beyond which we cannot go, and, if the parents differ much, as in the case of the horse and ass, the progeny is sterile. The question, then, which has for a century or more been keenly debated is: How did these different animal and vegetable species arise? Did an elephant, or a giraffe, or tiger make its first appearance quite suddenly in a place where it was not a moment before, and continue ever after to breed "after their kind," or have these species arisen by very gradual changes from few and primal forms or even one form of primitive life?

Speculations such as those of Lamarck, Erasmus Darwin and others, on the production of species did not obtain wide acceptance, but in 1859 Charles Darwin published his book on *The Origin of Species*, which at once opened a new era. Darwin's theory, briefly explained, was as follows: There is an enormous fertility amongst the majority of animals and plants. A single fish may lay a million eggs, or even many million, and the same of insects of some species. The means of subsistence are, however, limited and often difficult to obtain. Hence arises a struggle for existence. Accordingly the slight variation in the progeny of a single pair renders some of them better adapted to their surroundings and better able to obtain the necessary food; they survive and procreate, and the rest and majority die off.

Darwin's theory of the survival of the fittest and of a natural selection was eagerly taken up by a number of biologists as an explanation of the origin of species. It was, and is, supported in some cases by finding intermediate forms of animals gradually leading up to specialized forms, as in the case of the horse. In course of time objections began to appear to this theory, and it was seen that much can be said against it. It would, however, be quite impossible in the short limits of this paper to summarize even in the briefest manner the arguments for and against the Darwinian theory of the origin of species, or the modifications of it such as that associated with the name of Mendel.

Although most of our eminent naturalists express their belief

that some form of Evolution has governed the development of living beings as against sudden creation, there is also a very widely spread conviction that this theory of Evolution is insufficient, taken by itself, to explain everything. That this opinion is gaining ground is evident from statements by some eminent naturalists. At the meeting of the British Association at Oxford during this year (1926), Professor H. F. Osborn, in discussing "The Problem of the Origin of Species as it appeared to Darwin in 1859 and as it appears to-day," said, "The word 'creation' must certainly be linked with the word 'evolution' to express in human language the age-long origin of species. Were Darwin alive to-day he would be the first to modify the speculations and conclusions of 1859."

The animal and vegetable kingdoms present themselves to us, not as a disorderly collection of species, but as an harmonious whole in relation to each other, and especially in relation to the human race dominant over both. The animal and vegetable kingdoms are in many respects complementary to each other. The oxygen of the air is necessary to maintain animal life, but the products of animal respiration, viz. carbon-dioxide, are inspired by vegetation—the carbon is fixed and, as oxygen, returned to the air.

What process of mere Evolution can have given us the countless products of vegetable life, such as quinine, nux vomica, salicine, morphia, and the great range of natural drugs which minister to human requirements? Without india-rubber, gutta-percha, petrol, paraffin, alcohol, sugar, and innumerable products of vegetation, modern human requirements could not have been met. How is it that these substances have appeared in correspondence to human wants?

In the same manner the products or functions of animals susceptible of domestication are far in excess of ther own needs for survival in the struggle for self-existence. There are a large number of facts and arguments which show that the theory of natural selection and survival under the pressure of self-preservation is not sufficient to account for relations of a special and useful character between the animals and plants and between these and humanity as we now find them. No theory of natural selection will explain, for instance, the beauty of the external world, the immense varieties of its flowers, trees, vegetation and animals, or its inorganic beauty, its sunrises and sunsets, mountains, seas and clouds, all harmoniously related to each other

and to human needs. It is clear, then, that Evolution as well as individual growth requires Guidance, although there may be a certain mechanism at work in the production of the variety. A special machinery may have been devised which operates according to certain regular laws in the production of species, but its working has been controlled by a Directive Power which views the single event in relation to the whole.

Then, in conclusion, we must briefly consider the theory of Evolution in relation to the human race.

Many of the biologists who have accepted an Evolutionary theory for the production of animal and vegetable species have gone on to apply it in an unrestricted manner to the evolution of the human race.

They maintain that just as the anthropoid apes have been evolved by natural selection from lower forms of mammals, so the genus *homo sapiens*, or intelligent man, has likewise arisen by Evolution from some form of anthropoid or simian ancestor. The search for intermediate stages of development has therefore been ardently conducted, and a few, but very few, fragments of skeletons have been found which are held to support this theory.

It is of course impossible to deny the general similarity of bodily structure in the anthropoid apes and in man. Nor is it possible to deny the possession by the higher animals of self-consciousness, memory, a certain degree of intelligence in adaptation of means to an end, in addition to the wonderful instinctive acts which characterize them.

On the other hand there are marked differences between them and the lowest of the prehistoric types of men of whose works any evidence remains. The chief characteristic of *homo sapiens*, or rational man, is his self-educative power and progressive intelligence.

Though some animals can be taught to do non-natural acts in imitation of human beings, no animal would teach these things to itself or continue to practise them when left alone. No animal by itself has ever been known to produce fire for warmth or cooking, construct a tool, plant and cultivate edible vegetables or grain, decorate its person or dress, or make drawings of other contemporary animals, yet these were all achievements of human beings in such prehistoric ages that we have no record of the first accomplishment. The usual evolutionary theory of this is, that man "acquired" a larger brain, began to live on the ground in place of trees, formed social communities in

self-defence, and so on. Intelligence is not, however, necessarily proportional to size of brain. The intelligence of ants and even other insects seems quite on the level of that of many of the larger mammals.

Also, if the brain is the mere instrument for the manifestation of thought and not, taken alone, its producing agency, we seem bound to admit for animals a certain immaterial psychical possession or power which is the controlling and guiding agency in bodily activity. If this is so, then that which distinguishes man from the brute is not merely the possession of a more highly organized brain, but of a higher form or type of psyche, or soul, or hyper-material endowment of self-conscious, thinking personality.

There is no evidence whatever that the few fragmentary bony remains which have been found, called by anthropologists *Eoanthropus*, *Pithecanthropus*, *Homo heidelbergensis*, *Neanderthal man*, *Homo rhodesiensis*, etc., all of them very imperfect remains, had the progressive human type of intelligence rather than the static animal or anthropoid-ape type. We have no means of knowing how far we are justified in calling these remains the evidences of an evolutionary transition from apes to man. Even leading biologists admit the uncertain, questionable character of much of the evidence for the existence of such transition.

The evidence that we do possess is much more consistent with the view that there was a "beginning" or creation, as asserted in the first chapter of Genesis, of the psychical or rational man by the bestowment of some special super-material endowment, or soul, which justified the use of the phrase "in the image of God created He him."

It is the psyche which is the true seat or source of the thinking power or intelligence. If we deny this proposition, then we are forced to admit that mere collocations of atoms of matter in a certain form called brain-tissue can become conscious of their own existence and possess originative or ordering power. But, as we all know, there are two accounts of the Creation of Man in the book of Genesis. The higher critics have adopted a view which originated with Astruc in 1753, that the book of Genesis is a patchwork of narratives by various authors and editors which are distinguished amongst other things by different names for the Supreme Being, translated in our Authorized Version, God, Lord God, The Almighty. It would be quite beyond the limits of this short essay to discuss this theory. Those who

wish to know what can be said against it may be referred to a little book by a Dutch theologian, Dr. A. Troelstra, on *The Name of God in the Pentateuch*, translated into English by Canon E. McClure (S.P.C.K.).

The higher critics would, however, assert that the Biblical account of the creation of the Adamic race in the second chapter of Genesis is a mere variant by a different author or authors of the account in the first chapter. The evolutionist would assert that neither of them are to be taken as literally true, and that man originated by natural processes of evolution from the anthropoid apes. But it is necessary then to explain from this latter point of view how the human being acquired that feeling or intuition that physical death is not the end of his personal existence. The burial customs of even prehistoric times bear witness to this almost universal conviction.

Again, the theory of Evolution affords no clue to the origin of that almost universal human idea that there is a Supreme Personal Controlling Power in the Universe, and that human conduct has to be harmonized with its commands. Even in the debased forms of polytheism and idolatry we have evidence of a decayed or distorted remnant of this instinct or intuition. Further, there does not seem to be any sufficient proof that merely tribal interests have produced by evolution that moral sense and conscience which weighs up actions and employs the terms "right" and "wrong" with regard to them.

Those tremendous words, God, Immortality, Duty, had a significance for mankind from earliest ages, but the theory of the ape-origin of man affords no clue to the reason for it. The evolutionary theory pays attention chiefly to the material development of brain and the utilitarian or self-preservative actions and powers of body, but there is a psychical element in man which dominates the material one, and one which clearly involved a new beginning or creation by bringing into existence something which was not previously present.

The second chapter of Genesis may therefore be considered as the record of the appearance of this psychical man having an element in his constitution breathed into him by his Creator by which he became, not merely a living body, but a "living soul." If we are compelled by scientific arguments to admit the existence of beginnings or creations with regard to Matter, Energy, World Order, Life and self-conscious Intelligence, in each of which stages there was an upward leap not the result

of agencies previously operative, then we may be prepared to go a step further and admit that the stage from Self-Consciousness to God-Consciousness was not automatic but an independent act of Creative Power. It is here that Biblical Revelation parts company with Evolutionary theory.

The Bible says that psychical man was an independent creation capable of knowing right from wrong, capable of communion with his Creator, and subjected to a test of obedience in which he failed. The whole of the rest of the Biblical narrative is the record of the special Divine methods for undoing the result of this failure and of the high destiny of this restored psychical man.

The Evolutionary theory regards moral evil as mere imperfection which time may be trusted to remove. It repudiates any idea of a "fall," to use a theological term, and traces back the origin of present mankind and existing anthropoid apes to a common simian ancestor of vast antiquity.

No valid reason, however, has been given why one branch of this simian family should practically have remained stationary in powers whilst the other has so astonishingly advanced, nor does that theory give us any convincing proof that future progress of humanity will be upwards rather than down.

Experience has negatived decisively the former expectation, that intellectual progress by part of humanity is necessarily accompanied by increase in the general harmony and stability of social life, or progress in those qualities which make for moral and personal excellence in the individual.

The theory of Evolution is powerless to explain the past or to inspire hope for the future of humanity. The only solid and secure progress that can come is from the teaching and truths laid down for us in the inspired writings which, in spite of all attacks upon them, remain to multitudes a revelation from the Creator of the Universe and the Father of human Spirits. In that revelation man is regarded, not as an improved monkey, but as a son of God, and taught to realize that when bodily death removes from him the links which connect him with the animal races, his true personality may yet have a more abiding tabernacle, "a building of God, an house not made with hands, eternal in the heavens."

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or

PHILOSOPHICAL SOCIETY OF GREAT BRITAIN

1 Central Buildings, Westminster, S.W.

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The objects of this Society, founded in the year 1865, are :—

FIRST.—To investigate, in a reverent spirit, important questions of Philosophy and Science, especially those bearing upon Holy Scripture.

SECOND.—To arrange for addresses for men who have themselves contributed to progress in Science and Research, and thus to bring the Members and Associates of the Institute into direct touch with the latest advances.

THIRD.—In humble faith in One Eternal God, Who created all things good, to combat the unbelief now prevalent by directing attention to the evidences of the Divine care for man that are supplied by Science, History, and Religion.

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